

PATENT
IBM Docket No. RAL9-97-0043US2

REMARKS

The present application was a divisional from an earlier-filed application and claims 2, 3, and 22 - 33 were originally presented for examination. Claim 2 has been amended herewith to be an independent claim including the elements of former claim 1. As discussed below, claims 23 and 26-33 have been withdrawn from further consideration as being drawn to a non-elected invention. Claims 34 - 37 have been added herewith, depending from claims 22 and 25. Claims 2, 3, 22, 24, 25, and 34 - 37 remain in the application.

The Official Action states that restriction to one of IV identified inventions is required under 35 U.S.C. 121. As stated in the Official Action, Dan McConnell provisionally elected group I, identified as claims 22, 24 and 25, in a telephone interview on May 7, 2003. That election is hereby affirmed and claims 23 and 26-33 are withdrawn from further consideration as being drawn to a non-elected invention.

It is noted by the Applicants, however, that claims 2 and 3 are not identified as being part of any of the IV identified inventions. It is the position of the Applicants that claims 2 and 3 properly belong to the elected group of claims, group I, and should remain in this application for further consideration.

Also, claims 34 - 37 have been added to the present application herewith. Claims 34 and 35 depend from elected claim 22 and specifies the formats applicable to the first and second frame formats of claim 22. Claims 35 and 36 make the same specification with respect to their parent claim, claim 25. None of these claims adds new matter to the application since the forwarding of switch format frames to and from ATM or LAN format frames is discussed throughout the application. Claims 34 - 37 are properly considered part of the elected group of claims to be further considered, group I.

PATENT
IBM Docket No. RAL9-97-0043US2

The Official Action states that claims 2 and 3 are objected to as depending from canceled claim 1. Claim 2 has been amended to be an independent claim including the elements formerly included in canceled claim 1. Claim 3 remains unchanged as it previously depended from claim 2 as is proper. The Applicants believe that claims 2 and 3, as amended, are in condition for allowance and respectfully request early notification of the same.

The Official Action goes on to state that claims 22, 24 and 25 are rejected under 35 U.S.C. 102(b) as anticipated by US Pat. No. 5,323,392 to Ishii et al. Claim 22 of the present invention requires a frame converter "comprised only of hardware for bridging frames from a first frame format to a second frame format, said bridging without requiring processor intervention." In rejecting this claim based on Ishii, the Examiner references Figure 5 of the Ishii application and the discussion appearing from column 2, line 67 to column 3, line 14 of the Ishii specification. The Official Action states that "fig. 5 shows internal structure of adaptation device without a processor."

The Figure and discussion referenced by the Official Action are in the background, or prior art, section of the Ishii specification. The discussion of known adaptation devices appearing in the sections of the specification referenced in the Official Action are therefore rather perfunctory and not at all detailed. Because the referenced discussion and Figure is merely background material there is no presumption or representation that it is complete. They appear in the specification only to outline the approximate ways in which adaptation devices operated prior to the Ishii application. Neither the discussion nor Figure 5 purport to show or explain the actual elements, hardware and software, present within the adaptation device. Figure 5 shows within the adaptation device only a representation of levels 1 and 2 of the respective frames and a function labeled simply "L2 relaying." There is no mention of how the relaying is accomplished, whether it is hardware, software or a combination. There

PATENT
IBM Docket No. RAL9-97-0043US2

is no teaching that it may be, or should preferably be, hardware-only with no processor involvement.

The Ishii application does provide a more detailed description of the prior art terminal adapters (another term for an adaptation device, see Ishii at column 2, lines 64-66) in the discussion of the European Patent Application no. 89480102.6 which is incorporated into Ishii in its entirety. That description specifically mentions a microprocessor and software which is used in carrying out the translation and relaying functions (see Ishii at column 5, lines 10-16).

Also in Ishii, Figure 8 shows the "preferred embodiment of the present invention." In discussing Figure 8, it is stated that "...a received frame would be stored in the RAM, the processing and mapping according to Figure 9 would be done by the microprocessor before forwarding the received frame." Neither mention of the use of a microprocessor, that in reference to the incorporated European application nor that in reference to the preferred embodiment of the Ishii invention, distinguishes that use from the prior art adaptation devices illustrated in Figure 5 and discussed as mentioned above. The implication being that the adaptation device of Figure 5 also utilized a processor to perform the necessary translation and forwarding tasks. Nowhere in Ishii is a hardware-only mapping solution taught or described, especially such a solution which avoids the use of a processor as required by claim 22 of the present application.

The background section of the present invention discusses Ishii and distinguishes it from the present invention, see page 4, second and third full paragraphs. It is pointed out that Ishii's micro-processor based mapping functions were acceptable for slower network speeds but that the hardware-only mapping performed as described by the present application without the intervention of a processor, is necessary to support the requirements of more recent,

PATENT
IBM Docket No. RAL9-97-0043US2

higher-speed networks. The Applicants feel that claim 22 is patentably distinct over the prior art of record and respectfully request that the rejection be withdrawn.

With respect to claim 24, the Official Action states that claim 24 "has similar limitations as claim 22" and so states that claim 24 "is rejected under Ishii for the same reasons set forth in the rejection of claim 22. Claim 24 of the present application requires a bridging apparatus "comprised only of hardware for converting and forwarding frames having a first frame format to frames having a second frame format, said conversion without requiring processor intervention." The Applicants feel that claim 24 is patentably distinct over the Ishii reference for the same reasons given above with respect to claim 22.

With respect to claim 25, the Official Action states that "Ishii discloses conversion tables in fig. 5 of the adaptation device." Claim 25 of the present invention depends from claim 24 and further requires "conversion tables for assisting in said converting and forwarding of frames." As discussed above, Figure 5 of Ishii shows in the adaptation device only a representation of a "L2 Relaying" function and a representation of OSI levels 1 and 2, one such representation for LAPB frames and one such representation for LAPD frames. There is no indication in Figure 5 of the presence or use of any "conversion tables" as required by claim 25. Also, the only discussion of Figure 5 in Ishii appears from column 2, line 67 to column 3, line 25 and nowhere in that discussion is the use of conversion tables mentioned. Further, the Applicants can find no mention of conversion tables elsewhere in Ishii, either. It is the position of the Applicants that claim 25 is in condition for allowance since it depends from claim 24 which is allowable as discussed above. In any event, the additional element of claim 25, that of the use of conversion tables, is not shown in the prior art of reference, rendering claim 25 ever further distinguishable over the prior art.

PATENT
IBM Docket No. RAL9-97-0043US2

New claims 34 and 35 depend from claim 22 and therefore include all of the limitations of claim 22. As discussed above, the Applicants feel that claim 22 is patentably distinct over the prior art and, therefore, claims 34 and 35 are also allowable as submitted. New claims 36 and 37 depend from claim 25 and therefore include all of the limitations of claims 24 and 25. As discussed above, the Applicants feel that claims 24 and 25 are patentably distinct over the prior art and, therefore, claims 36 and 37 are also allowable as submitted.

As discussed above, Applicants feel that the claims remaining in the present application, as amended, claims 2, 3, 22, 24, 25 and 34 - 37 stand in condition for allowance and respectfully request early notification of the same.

Applicants respectfully request that the Examiner call Applicants' attorney at the below-listed number if the Examiner believes that a telephonic discussion would be helpful in resolving any remaining problems.

Respectfully Submitted,



SCOTT W. REID
Reg. No. 42,098

Customer No. 25299
IBM Corporation
Dept. 9CCA/002
P.O. Box 12195
Research Triangle Park, NC 27709-2195

Phone: (919) 254-1085
Fax: (919) 254-2649
email: swreid@us.ibm.com

OFFICIAL

RECEIVED
CENTRAL FAX CENTER

SEP 15 2003